MATERIAL SAFETY DATA SHEET OF
CYPERMETHRIN 10% EC

1. IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY
Supplier: SHANGHAI MINGDOU AGROCHEMICAL CO., LTD
Address: Rm. 1210, Zhenyuan Building, No. 2052 North Zhongshan Rd, Shanghai, China
FAX: +86 21 52912097, 61638378
TEL: +86 21 52912919, 52045380, 52045370
Product name: Cypermethrin 10% EC

2. COMPOSITION/INFORMATION ON INGREDIENTS
Formulation Type: Emulsifiable concentrate
Active Ingredients: Cypermethrin
Chemical Abstracts name:
   cyano(3-phenoxyphenyl)methyl 3-(2,2-dichloroethenyl)-2,2-dimethylcyclopropanecarboxylate
CAS NO. : [52315-07-8] (formerly [69865-47-0], [86752-99-0] and many other numbers)
Molecular Formula: C_{22}H_{19}Cl_{2}NO_{3}
Molecular Weight: 416.3
Structural Formula:

Other ingredients determined not to be hazardous

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cypermethrin tech</td>
<td>[52315-07-8]</td>
<td>10.7%</td>
</tr>
<tr>
<td>Emulsifiers</td>
<td>Not available</td>
<td>4.3% w/w</td>
</tr>
<tr>
<td>Aromatic solvent</td>
<td>Not available</td>
<td>85.0% w/w</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION
   Xn – Harmful; may cause lung damage if swallowed.
   F – Flammable.
   Dangerous for the environment.
4. FIRST AID MEASURES

General: If poisoning is suspected, immediately contact the poison information centre, doctor or nearest hospital. Have the product container, label or Material Safety Data Sheet with you when going for treatment. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

Eyes and Skin: Remove contaminated clothing. Wash off with soap and water. Get medical attention. Eye contact: Flush thoroughly with eye wash solution or clean water for 15 minutes. Get medical attention.

Ingestion: Do not induce vomiting. Get medical attention. Wash out mouth with water. If spontaneous vomiting has occurred keep patient at rest, ensuring airways are clear and phone for an ambulance with oxygen facilities.

Inhalation: Remove to fresh air. Loosen clothing at neck. Keep at rest. Get medical attention.

Notes to Physician: Contains pyrethroid in petroleum distillate.

5. FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry powder or foam fire extinguishers. DO NOT USE WATER JET. Toxic fumes will be evolved in a fire. Self-contained breathing apparatus should be worn by fire fighters.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

6. ACCIDENT RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Wear appropriate PPE. Absorb in sand, earth or proprietary product, shovel into a marked container and contact a waste disposal firm or suppliers for disposal advice. Wash area with water.

7. HANDLING AND STORAGE

Precautions in use:

Wear suitable protective clothing, gloves and eye/face protection.

AVOID EXCESSIVE CONTAMINATION OF COVERALLS AND LAUNDER REGULARLY.

Do not breathe spray. Otherwise wear respiratory protective equipment and eye protection.

DO NOT CONTAMINATE FOODSTUFFS, EATING UTENSILS OR FOOD CONTACT SURFACES.

COVER WATER STORAGE TANKS before application.
This material and its container must be disposed of in a safe way.

WHEN USING, DO NOT EAT, DRINK OR SMOKE.

UNPROTECTED PERSONS AND ANIMALS SHOULD BE KEPT AWAY
FROM TREATED AREAS UNTIL SURFACES ARE DRY.

REMOVE OR COVER ALL FISH TANKS AND BOWLS before application.

Do not contaminate waterbodies or watercourses with chemicals or used container.

AVOID ALL CONTACT WITH PLANT LIFE.

DO NOT APPLY DIRECTLY TO LIVESTOCK AND POULTRY.

If swallowed, do not induce vomiting: seek medical advice immediately and show this container label.

WASH SPLASHES from skin or eyes immediately.

WASH HANDS AND EXPOSED SKIN before meals and after use.

Always read the label. Use pesticides safely.

Read safety data sheet before using this product.

Storage and transport precautions:

Keep only in the original container.

Keep container tightly closed.

KEEP IN A SAFE PLACE.

Keep out of the reach of children.

Keep away from sources of ignition – No Smoking.

Keep away from food, drink and animal feeding stuffs.

Do not use, store or spill near open flame or electric fire.

Protect from frost.

When not in use, store upright with cap tightly screwed on.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>PPE Item</th>
<th>In Use</th>
<th>Spillage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respirator</td>
<td>Half mask respirator to EN140 plus A1P2 class filter to EN141 (minimum)</td>
<td>Half mask respirator to EN140 plus A1P2 class filter to EN141 (minimum)</td>
</tr>
<tr>
<td>Gloves</td>
<td>Unlined synthetic rubber/PVC (300mm) eg. Solvex nitrile</td>
<td>Unlined synthetic rubber/PVC (300mm) eg. Solvex nitrile</td>
</tr>
<tr>
<td>Overall</td>
<td>Low levels of contamination- Coverall type 5/6</td>
<td>Low levels of contamination- Coverall type 5/6</td>
</tr>
<tr>
<td></td>
<td>High levels of contamination- Coverall</td>
<td>High levels of contamination- Coverall</td>
</tr>
</tbody>
</table>

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Light brown coloured clear liquid

**Odour:** Slight odour (irritating vapour)

**pH:** Not applicable

**Flash point:** 53°C

**Flammability:** Will burn at room temperatures to give toxic combustion products

**Bulk density:** 0.934g/mL

**Solubility:** Forms a white emulsion in water

**Incompatibility:** Incompatible with strong oxidising agents, strong acids and strong bases

### 10. STABILITY AND REACTIVITY

Flammable but not a reactive preparation.

**Conditions to avoid:** high temperature, flame, fire.

**Thermal decomposition:** N/A;

**Hazardous reaction:** N/A;

### 11. TOXICOLOGICAL INFORMATION

**Routes of entry/symptoms of contact:**

- **Inhalation:** Irritating to lungs and nasal passages.
- **Skin and eyes:** Irritating to skin and eyes.
- **Ingestion:** Hazardous if ingested in large quantities.

**Symptoms of contact:** A wide range of toxic effects including irritation, coughing, muscular spasms, tingling of skin and twitching may be included.

### 12. ECOLOGICAL INFORMATION

Extremely dangerous to fish. Remove/cover fish tanks/bowls before spraying. Do not contaminate ponds, waterways or ditches with the chemical or used containers.

### 13. DISPOSAL CONSIDERATION

**Empty containers:**

- Do not re-use. Empty completely- wash out into sprayer. Dispose of as below.

**Unused/recovered materials:**

- Do not dispose of in domestic refuse. Treat as controlled waste. Contact supplier for advice.
Contaminated PPE:

Do not dispose of in domestic refuse. Treat as controlled waste. Contact supplier for advice.

14. TRANSPORT INFORMATION

Do not transport with food and feedstuffs.

UN no. 1993
Class 3.3. Flammable. Flammable Packing Group III.

15. REGULATARY INFORMATION

The information contained in this data sheet does not constitute the user’s own assessment of workplace risks as required by legislation.

Keep out of the reach of children.

Keep container tightly closed.

Keep away from sources of ignition- No Smoking.

16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact this company.

END OF MSDS